

Serial No. 09/846,254
Reply to Office Action of May 4, 2005

REMARKS/ARGUMENTS

Prior to this Amendment, claims 1-4, 6-12, 14-22, 33-40, 43, 62-80, 85, 86, 91, and 94 were pending in the application. No claim amendments are made with this Amendment, with the listing of claims provided for the sake of completeness and clarity.

Claim Rejections Under 35 U.S.C. §103

In the Office Action dated May 4, 2005, claims 1-4, 6-12, 14-22, 33-40, 43, 62-69, 74-75, 78-80, 85-86, and 94 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Pat. No. 6,477,585 ("Cohen"). This rejection is traversed based on the following remarks.

Claim 1 calls for a filter to be provided "on said subscriber node", and this filter acts to "process a plurality of events published on said event channel to identify said event as a matching event." With this configuration, the subscriber node does the filtering of events published or made available on a linked event channel, i.e., the network uses subscriber-side filtering. In contrast, Cohen teaches supplier or publisher-side filtering. Hence, the network of claim 1 is not shown or suggested by Cohen.

As discussed in the prior response, with regard to claim 1, the Office Action cites Cohen at col. 5, lines 48-49 for teaching the event channel of claim 1 and at col. 6, line 7 (consumer-side EMS filter) and col. 6, lines 19-22 for showing a filter to identify an event on the subscriber node. Applicants disagree with this construction of Cohen. At col. 5, lines 55-61 with reference to Figures 2 and 3, Cohen makes it clear that its event distribution method involves providing a single host computer running an event management system (EMS 22), i.e., the supplier or publisher that performs the filtering. According to Cohen, clients must subscribe to the EMS 22 and also define filters that are stored in a filter database 46 at the device hosting the EMS 22 (i.e., not on the event consumers 26a-26n). Also, with reference to Figure 3, the event channel is shown to be part of the EMS 22. Based on these arguments, Applicants concluded in their last response that Cohen fails to show "a

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filter on said subscriber node" because as can be seen in Figure 3 the event consumers 26 are remote to the EMS 22 which stores the filters in database 46.

In the Response to Arguments, the Examiner states that Cohen "does not explicitly teach the filter is on the subscriber node" but then, argues that because the consumer uses a consumer API to define filters and add it to an event filter group that one skilled in the art would "conclude the filter is in fact from the subscriber node wherein this filter being created and forward to the filter group as disclosed by Cohen." Therefore, the Examiner asserted that the language of claim 1 is met by the Cohen teaching. Applicants disagree as claim 1 requires that the filter not only be on the subscriber node temporarily during its creation before it is transferred to a publisher node for storage in a filter database but that the filter also be on the subscriber node to "process a plurality of events published on said event channel" by matching the event with "at least one pattern field..within said filter."

Claim 1 is written to require that the subscriber node perform the filtering of events. In direct contrast, as noted by the Examiner, Cohen teaches in Figure 3 and related text that the filters created by the consumer via operation of event consumers 26a-26n and consumer API are stored in the consumer database 40 for use in filtering by the event management system 22, i.e., the events are filtered prior to being sent to the consumers, which simply receive all events transmitted to them. As a result, Cohen does not support a rejection of claim 1, and Applicants request that this rejection be withdrawn.

Further, Cohen fails to teach "an application...opens said event channel at said subscriber node." The Response to Arguments fails to address this argument for allowing claim 1 over Cohen provided in the last response. The Office Action cites Cohen at lines 48-49 of column 5 for providing this teaching. Cohen, at this citation, states "Communications through the event channel are "asynchronous" in that they may be provided to the event consumers at any time." Cohen does NOT teach that an application at the subscriber node that defines the filter and its fields also acts to open an event channel provided between the publisher and the subscriber nodes. If the event consumers of Cohen are taken to be the subscriber

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nodes, there is no discussion in Cohen that an application on these nodes acts to open an event channel. From col. 5, lines 14-37, it appears that communications between the EMS/event suppliers and the event consumers is controlled by the EMS. For this additional reason, Cohen fails to teach or suggest each and every limitation of claim 1.

Claims 2-4 and 6-11 depend from claim 1 and are believed allowable as depending from an allowable base claim. Claim 94 also depends from claim 1 and is believed allowable as Cohen fails to teach a plurality of subscriber nodes each including a filter defined by an application on the node, opening an event channel over a communication link to each such node, and using the filter at each node to identify matching events for receipt by the application.

Regarding independent claim 12, the Office Action relies on Cohen to reject the claim in a manner similar to that of claim 1. Therefore, the reasons for allowing claim 1 over Cohen are applicable to claim 12. Additionally, Cohen fails to teach a queue on the same node that assigns the filter and receives and uses matching events. In contrast, the queue 47 is shown to be part of the EMS 22 and is placed on single host within a network as shown in Figures 2 and 3 (e.g., not on the consumer nodes 26). This additional reason for allowing claim 12 was provided in the last response, but the Examiner did not address the argument in the Response to Arguments. For this additional reason, the rejection of claim 12 based on Cohen is not proper and should be withdrawn. Claims 14-22 depend from claim 12 and are believed allowable as depending from an allowable base claim.

Independent claim 33 as amended calls for opening an event channel at a node that provides a shared communication path on a communication link and to subscribing to receive events at the node over the event channel. Cohen fails to teach these features as it describes (as discussed with reference to claim 1) running an EMS on a single node and then distributing events to specific nodes after filtering on the EMS node. The method of claim 33 is very different in that it supports fully asynchronous communication over the event channel without requiring an event publisher to provide addresses of receiving nodes. Claim 33 is

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also amended to clarify that the method includes running an application on the node, receiving and processing an event at the node over the event channel, and then when a match is determined "at said node" passing the received event to the application on the node. Distribution out of the node is not required after filtering as is the case in the Cohen method. For these reasons, claims 33 and claims 34-40 and 43, which depend from claim 33, are believed allowable over Cohen.

Independent claim 62 was rejected in the Office Action for the same reasons as provided for rejecting claim 1, and the reasons provided for allowing claim 1 over Cohen are applicable to claim 62. Further, Cohen fails to teach or suggest granting access to an event channel on a communication link and associating such access or permission to an application running on a node network. Hence, Cohen does not support a rejection of claim 62 or claims 63-69, which depend from claim 62, and these claims are believed in condition for allowance.

Regarding independent claim 74, the Office Action states that claim 74 is the same method as claim 1 and rejects it for the same reasons (except under 103). However, claim 74 includes differing limitations not included in claim 1. Specifically, the sending, marking, and filtering steps are not included or include differing language than provide in claim 1. Hence, the Examiner has failed to make out a proper case of obviousness because the Examiner has not provided explicit citations to Cohen where each and every limitation in the claim is shown or made obvious. As a result, claim 74 and claims 75, 78, and 79, which depend from claim 74, are believed in condition for allowance.

Independent claim 80 was rejected in the Office Action for the reasons provided for rejecting claim 1, and hence, the reasons provided for allowing claim 1 over Cohen are believed applicable to claim 80. Specifically, Cohen fails to teach using a client application for opening an event channel on the same node as is running the application and receiving and filtering events on the channel with a filter on the application's node. Further, Cohen fails to teach opening such an event channel in read and write modes as now called for in claim 80. Based on these arguments, claim 80 and claims 85 and 86, which depend from claim 80 are not

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shown or suggested by Cohen, and the rejection of these claims should be withdrawn.

Further, in the Office Action, claims 70-73, 76-77, and 91 were rejected under 35 U.S.C. §103(a) as being unpatentable over Cohen in view of U.S. Pat. No. 6,314,533 ("Novik"). The rejection of the other pending claims is traversed based on the following remarks.

Referring to independent claim 70, the Office Action states that Cohen fails to teach building its filters from a "binary tree" but cites Novik at col. 2, lines 56-59 for providing teaching building filters from "search trees" (as called for in claim 70). However, at this citation, Novik states "Preferably, the filtering of events would be performed at the event provider itself, such that any events that are not requested by a subscriber would be discarded at the event provider." There is no teaching at this citation of building a filter from a plurality of search trees, of selecting a search tree from said filter, and comparing said event with said search tree as called for in claim 1.

Further, Novik teaches similarly to Cohen that filtering is performed at the event supplier or publisher. In contrast, claim 70 calls for the building, selecting, and use of the filter to be performed at the node that is also used for "receiving an event at said node." Hence, the filtering (and its construction) are performed at the event consumer or subscriber rather than at the event supplier or provider node as taught by both Cohen and Novik. Since these references fail to teach or suggest each and every limitation of claim 70 and actually teach away from its limitations, claim 70 is not made obvious by the combined teachings of these two references.

Claims 71-73 depend from claim 70 and are believed allowable for at least the reasons provided for allowing claim 70.

Claims 76 and 77 depend from claim 74 and are believed allowable as depending from an allowable base claim. Further, Novik fails to overcome the deficiencies noted with reference to claim 74.

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Independent claim 91 is directed to a computer program product with limitations similar to that of claim 70. The reasons provided above for allowing claim 70 over Cohen and Novik are believed applicable to claim 91.

Conclusions

In view of all of the above, Applicants respectfully request that a timely Notice of Allowance be issued in this case.

No fee is believed due for this submittal. However, any fee deficiency associated with this submittal may be charged to Deposit Account No. 50-1123.

Respectfully submitted,



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